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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/664,978

09/22/2003

Hajime Hasebe

H-1019-02

4982

24956

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02/13/2008

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

1800 DIAGONAL ROAD

SUITE 370

ALEXANDRIA, VA 22314

EXAMINER

LOUIE, WAI SING

ART UNIT

PAPER NUMBER

2814

MAIL DATE

DELIVERY MODE

02/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/664,978	Applicant(s) HASEBE ET AL.	
	Examiner Wai-Sing Louie	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 58-62 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 58-62 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/22/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 58-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Sonobe et al. (US 6,054,716).

With regard to claims 58-59, Sonobe et al. disclose a semiconductor light-emitting device (col. 8, line 35 et seq. and fig. 1a) comprising:

- A seal member 6 formed of an insulating resin (col. 8, line 53);
- A tab 11 whose back side is exposed to a mounting surface of the seal member 6, the tab 11 having , on a surface opposite to the back side, a semiconductor chip 3 fixing area and wire connection areas 4 (col. 8, line 40 and fig. 1a);
- Tab suspension leads 1 and 2 contiguous to the tab (fig. 1a);
- A plurality of leads 1 and 2 whose back sides are exposed to the mounting surface of the seal member 6 (fig. 1a);
- A semiconductor chip 3 positioned within the seal member 6 and fixed through an adhesive onto the semiconductor chip fixing area in such a manner that a back side of the semiconductor chip 3 is opposed to the semiconductor chip fixing area

(col. 9, lines 43-45 and fig. 1a), the semiconductor chip has electrodes formed on a main surface of the semiconductor chip 3 (fig. 1a);

- Electrically conductive wires 4 for electrically connecting the electrodes of the semiconductor chip and surfaces of the leads 1 and 2 and electrically connecting the electrodes on the semiconductor chip 3 and the wire connecting areas on the tab (col. 8, lines 50-53 and fig. 1a), where the tab 11 is formed larger than the semiconductor chip 3 so that outer peripheral edges of the tab 11 are positioned outside outer peripheral edges of the semiconductor chip 3 (fig. 1a), and where the tab 11 has first sides formed at the semiconductor chip fixing area and second sides opposed to the first sides, formed between the semiconductor chip fixing area and the wiring connecting areas (fig. 1a).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonobe et al. (US 6,054,716) in view of Uemura (US 6,310,364).

With regard to claim 60, Sonobe et al. disclose the tab 11 and surfaces of leads 1 and 2 have wire connection areas, but do not disclose a plating film selectively formed on the wire

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connection areas. However, Uemura discloses applying solder or silver paste on the lead frame 50a and 50b (Uemura col. 6, lines 6-7 and fig. 1). Uemura teaches the solder or silver paste makes the connection between the lead frame 50a and 50b with the bonding pad 11a and 11b relative ease (Uemura col. 6, lines 6-12). Therefore, it would have been obvious to one of ordinary skill in the art to modify Sonobe's device with the teaching of Uemura to provide a plating film (solder or silver paste) in order to make the connections relative ease.

With regard to claims 61-62, Sonobe et al. disclose the tab 11 is circular (fig. 1b), but do not disclose the tab is quadrangular shape, where the first and second sides are formed selectively in a mutually independent manner, or where the width of the surface of the tab is larger than a width of the back side. However, selecting different shape of tab is considered as changes in shape of the product. The changes in shape of the product are held to have been obvious for a person of ordinary skill in the art. In re Daily 149 USPQ 47, 50 (CCPA 1966). See also Glue Co. v. Upton 97 US 3, 24 (USSC 1878).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai-Sing Louie whose telephone number is 571-272-1709. The examiner can normally be reached on 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wai-Sing Louie/
Primary Examiner, Art Unit 2814

Wsl
February 11, 2008.